Chapter 2 Telecommunications Equipment

Section I. Teletypewriter Equipment

AN/UGC-74A(V)3
Communications Terminal

NSN: 5815-01-062-8194

Reference: TM 11-5815-602-10

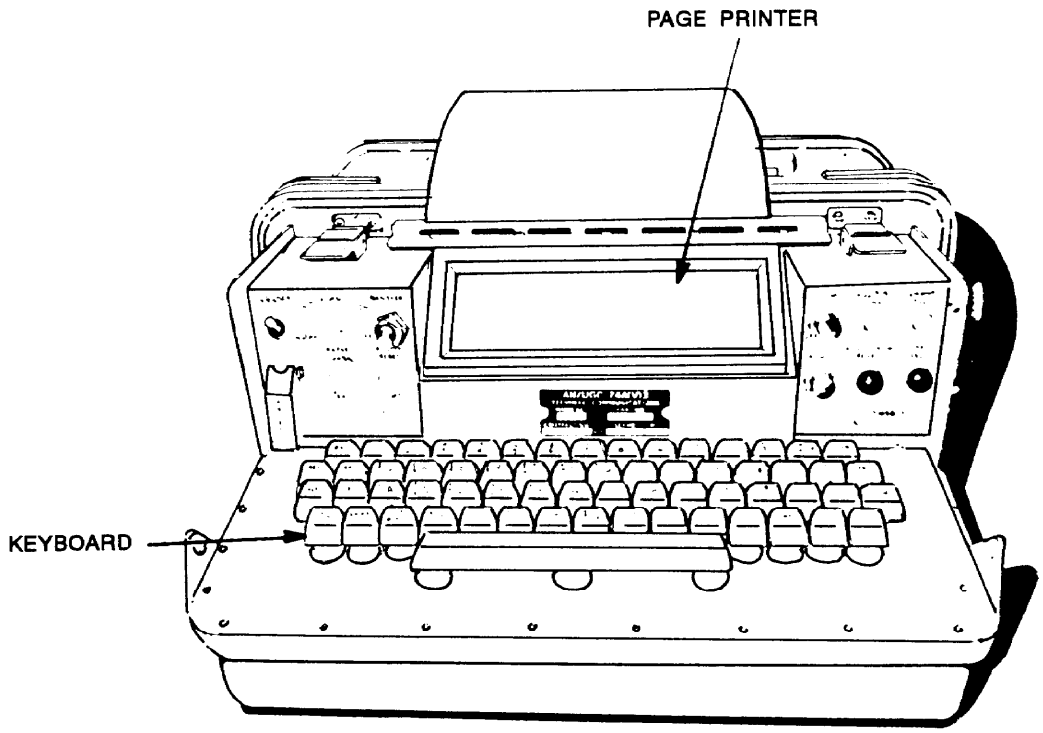
General Information

The AN/UGC-74A(V)3 is a message communications terminal used to compose, edit, store, transmit, receive, and print Army record traffic communications. The AN/UGC-74A(V)3 will interface/operate with existing and post-1980 communications security (COMSEC) equipment. It can communicate bit serial data represented in ITA-2 (Baudot) or American standard code for information interchange (ASCII) codes. The mode of transmission shall be asynchronous or synchronous depending on the data rate. The AN/UGC-74A(V)3 is designed to replace current tactical electromechanical teletypewriter equipment.

Technical Characteristics

Method of Transmitting	Standard four-row keyboard plus four special keys
Method of Receiving	Page copy only, single or multi-ply (three-ply max) roll paper
Type of Signal	20 or 60 mA neutral operation and Lo Data
Operation Mode	Full or half duplex
Speed Option	60 to 1,600 wpm
Power Requirement	22 to 30 V DC (DC power to maintain memory only in the event of AC power loss), 115 V AC $\pm$ 15%, 50, 60, or 400 Hz $\pm$ 5% 230 V AC $\pm$ 15%, 50, 60, or 400 Hz $\pm$ 5%
Power Consumption	100 W max
Weight	45.4 kg (100 lb) two-man carry

AN/UGC-74A(V)3
Communications Terminal



AN/UGC-144
Communications Terminal

NSN: 5815-01-262-4611

Reference: TM-11-7025-267-12

General Information

The AN/UGC-144 provides single subscriber operation. When in a network, the unit has a full-duplex asynchronous communications capability. It operates at signaling speeds of 45.5 to 32,000 b/s at ASCII data transfer rates. The single subscriber terminal (SST) can compose, edit, display, refile, store, transmit, and receive messages. It can monitor narrative message traffic in the R, U, and Y communities and can provide terminal-to-terminal voice communications if needed. ASCII or BAUDOT modes are available with normal input keying capability. The companion printer is a portable 85 column (or optional 136 column) serial, dot matrix line printer/plotter. It is a medium speed device that includes interface data, power supply, paper supply, and control mechanisms. It produces an alphanumeric printout at 50 to 240 characters per second depending on character font and number of characters per line selected.

Technical Characteristics

TERMINAL:

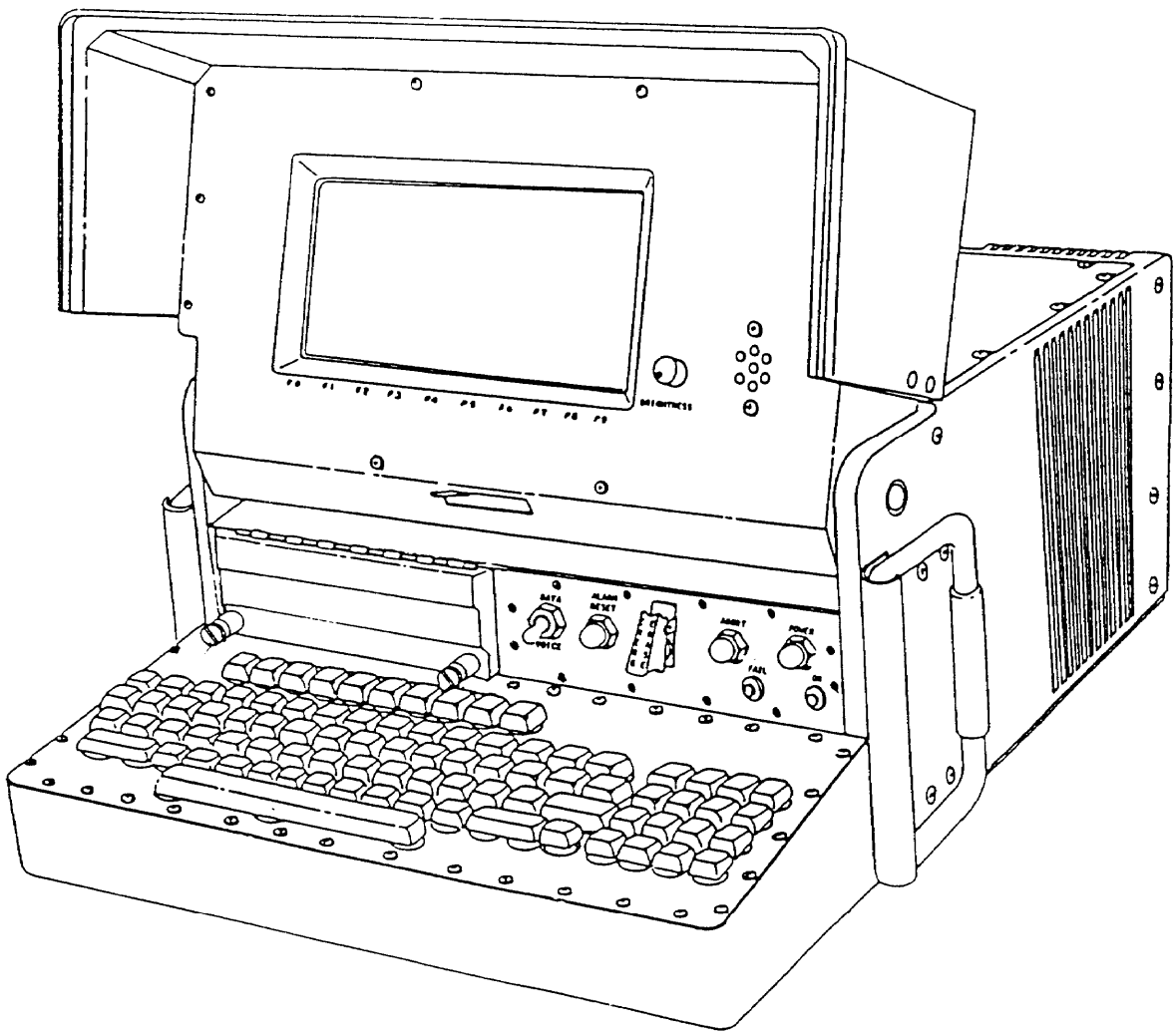
Data Transfer Rate	DACB rates: 2,400 to 32,000 b/s Non DACB rates: 75X2n to 9,600, 16,000, and 32,000 b/s BAUDOT rates: 45.5, 50, and 75
Access Time	10 msec
Primary Voltage Input	100/130 V AC, 48/63 HZ or 200/260 V AC, 48/63 HZ
Consumption	93W
Dissipation	15 W ± 10%
Battery	Four 1.5-V NI-CAD, C-size
Height (Closed)	25 cm (10.0 in)
Height (Open)	43 cm(17.0 in)
Width	51 cm (20.0 in)
Depth	56 cm (22.0 in)
Weight	25 kg (55 lb)

Technical Characteristics (Cont.)

PRINTER:

Speed	150/240 cps
Primary Voltage Input	100/130 V AC, 48/63 Hz or 200/260 V AC, 48/63 Hz
Consumption	13 W average
Height (Closed)	15 cm (6.0 in)
Height (Open)	19 cm (7.5 in)
Width	38 cm (15.0 in)
Depth	36 cm (14.0 in)
Weight	6 kg (l3.2 lb) without paper

AN/UGC-144
Communications Terminal



NOTE: Printer is separate.

MOD-40/8B
Data Terminal

NSN: Not available

Reference: Not available

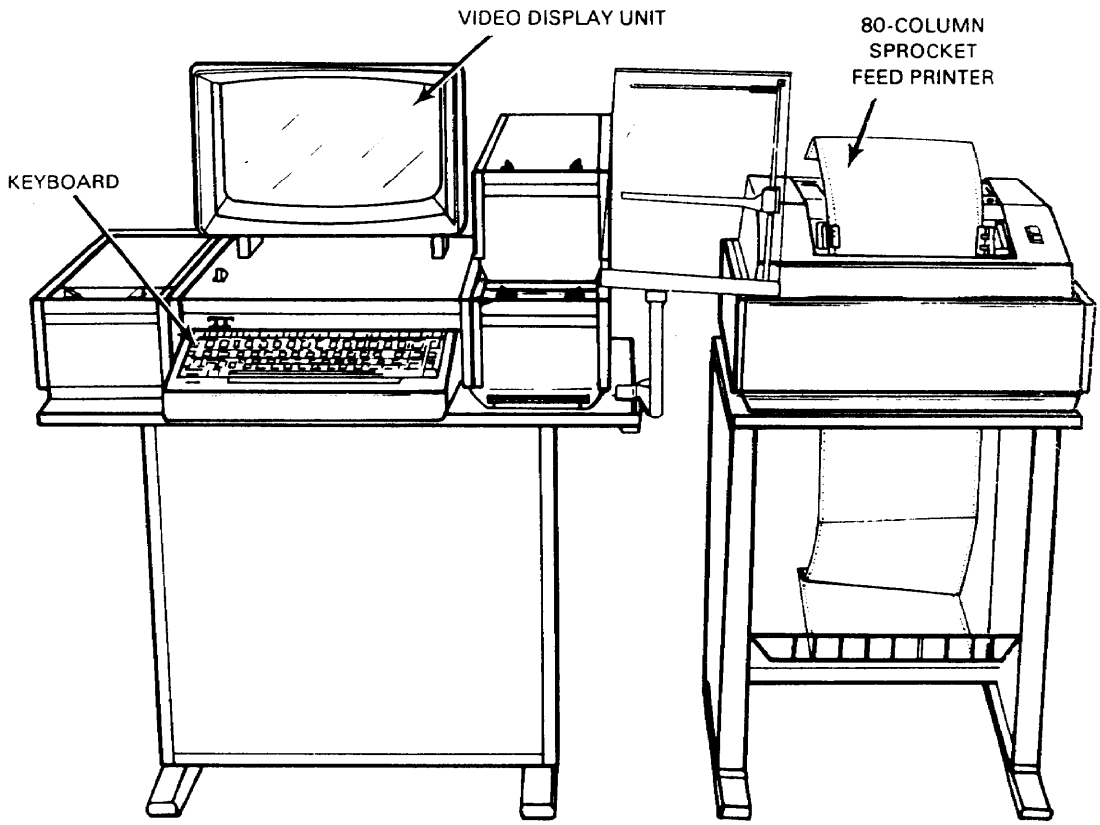
General Information

The MOD-40/8B airport surveillance radar (ASR) terminal provides interactive data communications with a central message processor or other similarly equipped terminals. It includes a keyboard/display (KD) and also may be equipped with up to three cassette-drive units for storage and retrieval. The message being prepared locally or being received may be displayed on the computer terminal cathode ray tube (CRT) for editing prior to transmission or to storage on cassette. It also is equipped with an 80-column tractor-feed printer. The MOD-40/8B can be interfaced with automated message media equipment (AMME), automatic digital network (AUTODIN), and the AN/TYC-39.

Technical Characteristics

Method of Transmitting	Standard four-row keyboard plus special keys
Method of Receiving	Screen display, magnetic tape, and page printer
Operation Mode	Full duplex
Input-Output Speed	2,400 b/s using the (ITA-2) Baudot or (ITA-5) ASCII codes
Power Requirement	115 V AC $\pm$ 10% at 48/52 or 58/62 Hz
Power Consumption	2,885 W

MOD-40/8B
Data Terminal



Section II. Facsimile Equipment and Tactical Computer Systems

AN/GXC-7A
Tactical Facsimile Set

NSN: 5815-01-067-4655

Reference: TM 11-5895-1079-14-1

General Information

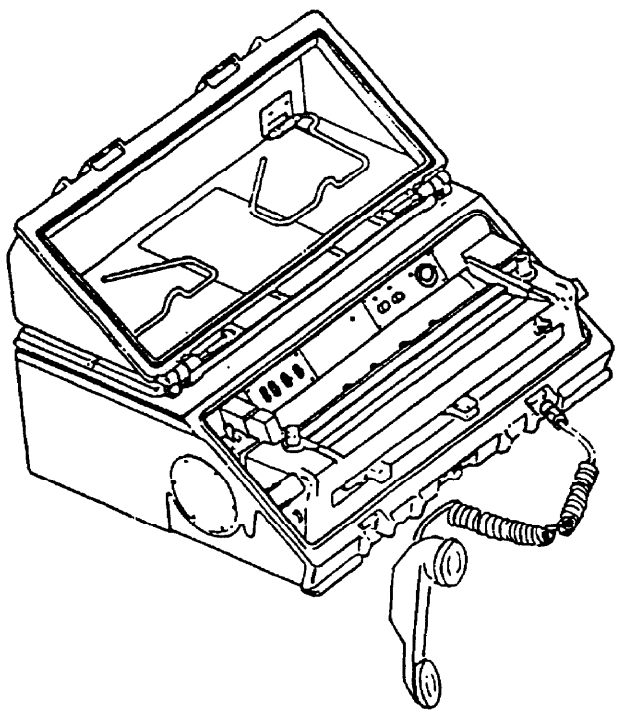
The AN/GXC-7A is a lightweight, rugged, portable, low power system capable of operating from standard and vehicular power. It enables electronic transmission/reception of typed or handwritten record traffic, maps, overlays, drawings, photographs, and other types of documents containing black and white, color, or gray shades. The tactical facsimile will operate over existing and proposed standard voice radios and wire circuits.

Technical Characteristics

Printing	Any paper, using carbon paper transfer, including single copy sets, multiple copy sets, transparencies, map overlays, and view graphs
Power Requirement	115/230 V AC, 47/400 Hz or 22/32 V DC, 50 W
Weight	24 kg (53 lb) including carrying case

AN/GXC-7A
Tactical Facsimile Set

MEDIA	CONNECTION	INTERFACE	COPYTIME MINUTES (FULL PAGE)	GRAY SHADES
Field Wire	WD-1	TA-312	4,6	8
Phone Network	Autovon DDD	Acoustic or Direct Coupled	4,6	8
VHF Radio	Voice X-Mode	AN/VRC-12 AN/PRC-77	4,6 2,3	8
VHF Radio Secure	X-Mode(wideband)	KY-8/28/38 KY-57/58 AN/VRC-12 AN/PRC-77	4,6	8
		KY-57/58	2,3	Black and White
HF Radio	Voice	AN/GRC-106	4,6	8
HF Radio Secure	Voice	KG-30 Modem AN/GRC-106	4,6	Black and White
Multichannel Secure	Wire(voice)	KG-27 AN/TRC-145	4,6	8
Digital	MIL-STD-188 or RS-232C/V24	2400 B/S 4800 B/S	4,6 2,3	Black and White



AN/UXC-7
Tactical Digital Facsimile Set

NSN: 5815-01-187-7844

Reference: TM 11-5815-615-10

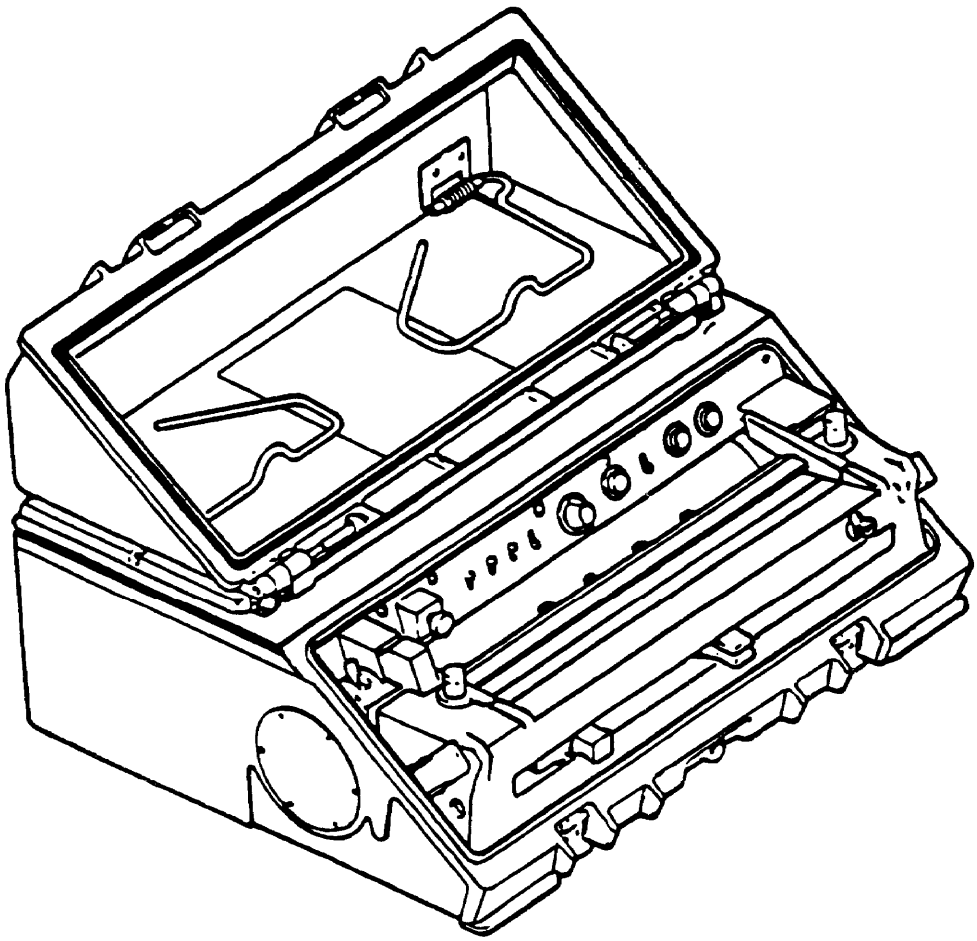
General Information

The AN/UXC-7 is a lightweight digital facsimile (LDF) set, rugged, waterproof, low power system capable of operating from standard alternating current (AC) and vehicle direct current (DC) power. It enables electronic transmission/reception of typed or handwritten record traffic, view graphs, map overlays, transparencies, and hand-drawn copies in black and white and eight shades of gray. The LDF will operate over existing and proposed voice radios and wire circuits; full digital or analog data/voice capability. Its brief transmission (burst) reduces the chance of detection by the enemy. The LDF set can store data in memory, and then can send in a short, high-speed transmission requiring 7 to 15 seconds to transmit a full page.

Technical Characteristics

Printing	Prints on any paper, using carbon paper transfer. Receives on single or multiple copy sets.
Power Requirements	115/230 V AC, 47/420 Hz; 22/32 V DC
Power Consumption	55 W AC standby; 98 WAC operating 50 W DC standby; 90 W DC operating
Weight	24.9 kg (55 lb) including carrying case

AN/UXC-7
Tactical Digital Facsimile Set



Section III. Computer Equipment

AN/TYQ-33(V)
Tactical Army Combat Service Support Computer System

NSN: Not available

Reference: TM 11-7010-213-12

General Information

The ANTYQ-33(V) system is a small portable computer designed to process data in the field. The Tactical Army Combat Service Support (CSS) Computer System (TACCS) is used to support the CSS missions in supply, maintenance, medical, and personnel areas. TACCS is available in two basic versions and can be expanded to a full cluster with five workstations. Version V1 consists of the master workstation and version V2 consists of V1 plus one remote workstation, The expanded cluster consists of one master workstation and up to five remote workstations.

Major Components

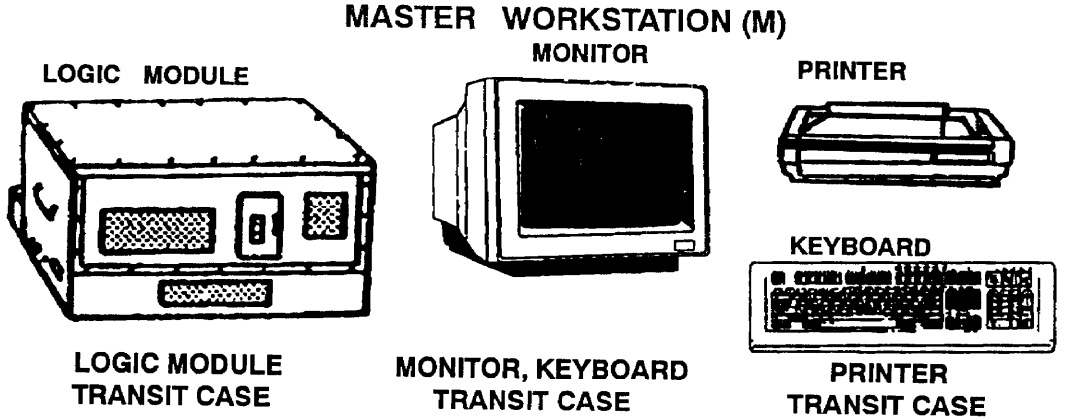
Master Workstation:
- 1 Logic Module
- 1 Monitor
- 1 Keyboard
- 1 Printer
- 3 Transit Cases

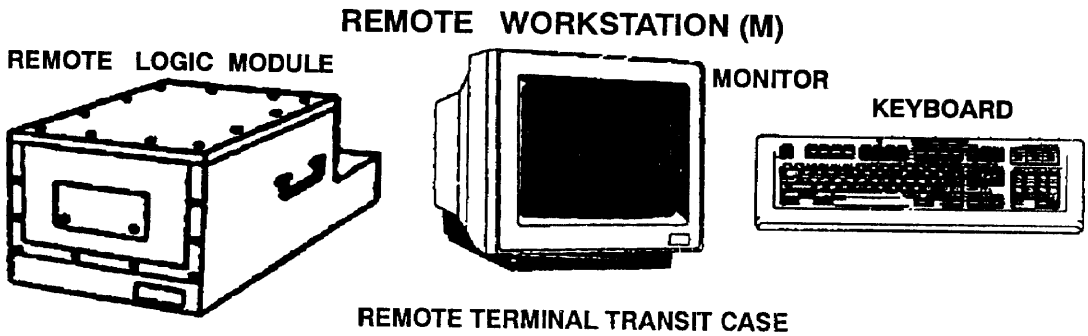
Remote Workstation:
- 1 Remote Logic
- 1 Monitor
- 1 Keyboard
- 1 Transit Case

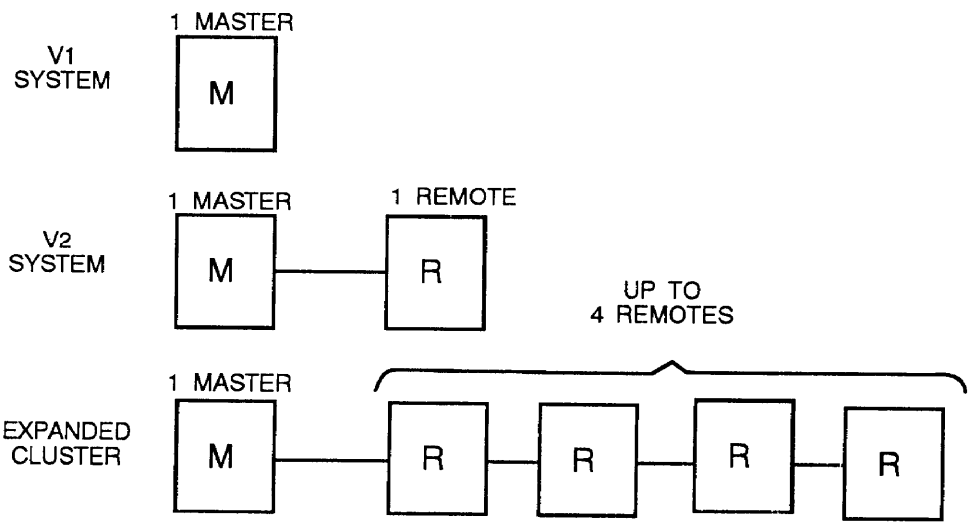
Technical Characteristics

Monitor	Cathode Ray Tube
Display Format	29 1ines of 80 characters
Character Format	9 x 12 dot matrix
Character Set	Soft font (stored in a software file) consisting of 256 characters (including standard ASCII set, graphic symbols, and other selected characters
Keyboard	98 keys in 6 groups with QWERTY standard layout
Printer	Tabletop, bidirectional, dot matrix, impact printer, tractor feed
Logic Module:	
Hard Drive	85 Mbytes, Disk Type Rigid, non-removable
Flexible Disk Drive	1 Mbytes double-sided, double density, 5 1/4 inch floppy; 630,784 bytes formatted
Tape Cartridge Drive	Cartridge type: 30M-DC600A industry standard, 24 Mbytes (formatted)
Electronics	Central processor, main memory, data communications, video generator for monitoring FM radio interface or telephone line connections with automatic/manual dial, two modems, (150, 300, 600 or 1,200 Baud), and connection to DSVT. 1 Mbyte RAM, 1 Mbyte RAM each remote.
Power Requirement:	
Single Phase	120 V AC $\pm$ 12 V AC, 60 Hz $\pm$ 3 Hz or 120 V AC $\pm$ 22 V AC, 50 Hz $\pm$ 2.5 Hz

AN/TYQ-33(V)
Tactical Army Combat Service Support Computer System







AN/UYQ-43(V)l and AN/UYQ-43(V)2
Tactical Computer Processor

NSN: (V1) 5895-01-211-9821
(V2) 5895-01-246-8276

Reference: TM 11-5895 -1348-12-1

General Information

The AN/UYQ-43(V)l and AN/UYQ-43(V)2 tactical computer processor (TCP) is a portable, general-purpose data processing display, and communications control equipment used to provide automated assistance to the Army maneuver commanders. The TCP can generate new tactical data, or update stored data in memory. The data can be in either alphanumeric, graphic, or combined alphanumeric/graphic form, An equipment interface for two-way communications over wire or radio links with other Army tactical units is provided.

Major Components

1 Display Unit 1P-1512/UYQ
1 Processing Unit Central CP-1712/UYQ
1 Power Conversion Unit PU-787/UYQ
1 Printer TT-815/UYQ
1 Recorder-Disk Tape RO-575/UYQ
1 Interface Unit J-4324/UYQ

Technical Characteristics

Power Source . . . . . 28 V DC or 115/230 V AC
Character Data Rate . . . . . 75, 150, 300, 600, 1,200, 2,400, 4,800, 8,000, 9,600, 16,000, and 32)000 b/s
Memory Media . . . . . Fixed Disk---152 Mbytes
Tape Cassette---67.1 Mbytes
Flexible Disk---36O Kbytes
Display unit . . . . . Color. 48 Lines. 130 Columns max

Technical Characteristics (Cont.)

Weight:

	Weight Each
1 Display Unit IP-1512/UYQ	65.9 kg (1451b)
1 Central Processing Unit CP-1712/UYQ	53.6 kg (118 lb)
1 Power Conversion Unit PU-787/UYQ	70.0 kg (154 lb)
1 Printer TT-815/UYQ	44.5 kg (98 lb)
1 Recorder-Disk/Tape RO-575/UYQ	73.2 kg (161 lb)
1 Interface Unit J-4324/UYQ	55.4 kg (122 lb)
Total Weight	362.6kg (798 lb)

AN/UYQ-43(V)1 and AN/UYQ-43(V)2 Tactical Computer Processor